

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the above-identified application.

Listing of Claims

1. **(Currently amended)** A computer-implemented method comprising:
~~estimating of a component gating risk in a manufacturing process, comprising~~
~~computing a mean production value using an altered component plan; and a derivative of~~
an expected quantity of products with respect to a quantity of a component of the
products;
~~computing [[said]] a component gating risk for the component based on the derivative;~~
~~and using said mean production value.~~
storing the component gating risk in a memory.

2. **(Currently amended)** A computer-implemented method comprising:
~~estimating a component gating risk in a manufacturing process, comprising~~
~~computing a first expected quantity of products based on a first quantity of a component~~
~~of the products; mean production value using said increased component plan;~~
~~computing a second expected quantity of the products based on a second quantity of the~~
~~component; mean production value using said decreased component plan; and~~
~~computing [[said]] a component gating risk based on the first and using said first and said~~
~~second expected quantities of the products; and mean production values.~~
storing the component gating risk in a memory.

3. **(Canceled)**

- 4-21. **(Canceled)**

22. **(New)** The method of claim 2, wherein the component gating risk is further based on a difference between the first and second expected quantities of the products.

23. (New) The method of claim 2, wherein the component gating risk is further based on a quantity of the component that is required for the manufacture of one unit of each product among the products.
24. (New) The method of claim 2, wherein the gating risk comprises a probability that the component will run out during the production of a quantity of the products between the first and second expected quantities of the products.
25. (New) The method of claim 2, wherein the gating risk comprises a probability that the component will run out during the production of a quantity of the products substantially in the range of the first and second expected quantities of the products.
26. (New) The method of claim 2, wherein the products comprise a plurality of different types of products, and at least two of the types of products are manufactured using the component.
27. (New) The method of claim 26, wherein the component is of one type of component among a plurality of types of components used in manufacture of the products.
28. (New) The method of claim 1, wherein the component gating risk is further based on a quantity of the component that is required for the manufacture of one unit of each product among the products.
29. (New) The method of claim 1, wherein the gating risk comprises a probability that the component will run out during the production of the expected quantity of the products.
30. (New) The method of claim 1, wherein the products comprise a plurality of different types of products, and at least two of the types of products are manufactured using the component.
31. (New) The method of claim 26, wherein the component is of one type of component among a plurality of types of components used in manufacture of the products.

32. **(New)** A computer readable storage medium encoded with instructions executable by a processor to perform the acts of:

computing a first expected quantity of products based on a first quantity of a component of the products;
computing a second expected quantity of the products based on a second quantity of the component; and
computing a component gating risk based on the first and second expected quantities of the products.

33. **(New)** The computer readable storage medium of claim 32, wherein the component gating risk is further based on a difference between the first and second expected quantities of the products.

34. **(New)** The computer readable storage medium of claim 32, wherein the component gating risk is further based on a quantity of the component that is required for the manufacture of one unit of each product among the products.

35. **(New)** The computer readable storage medium of claim 32, wherein the component gating risk comprises a probability that the component will run out during the production of a quantity of the products between the first and second expected quantities of the products.

36. **(New)** The computer readable storage medium of claim 32, wherein the gating risk comprises a probability that the component will run out during the production of a quantity of the products substantially in the range of the first and second expected quantities of the products.

37. **(New)** The computer readable storage medium of claim 32, wherein the products comprise a plurality of different types of products, and at least two of the types of products are manufactured using the component.

38. **(New)** The computer readable storage medium of claim 37, wherein the component is of one type of component among a plurality of types of components used in manufacture of the products.

39. (New) A computer system comprising:
a memory; and
a processor configured to operate on instructions stored in the memory to:
 compute a first expected quantity of products based on a first quantity of a
 component of the products,
 compute a second expected quantity of the products based on a second quantity of
 the component, and
 compute a component gating risk based on the first and second expected
 quantities of the products.